



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,072	04/24/2006	Jee Woong Seol	K-0793	9022

34610 7590 01/29/2008
KED & ASSOCIATES, LLP
P.O. Box 221200
Chantilly, VA 20153-1200

EXAMINER

RIVERO, ALEJANDRO

ART UNIT	PAPER NUMBER
----------	--------------

2618

MAIL DATE	DELIVERY MODE
-----------	---------------

01/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,072	Applicant(s) SEOL, JEE WOONG	
	Examiner Alejandro Rivero	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: elements 24, 25 and 26 of figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because it contains the phrases "The present invention provides" (line 1) and "The present invention includes" (line 5), which can be implied. Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities:

In page 7 (line 8), the examiner respectfully suggests replacing "traffic to ratio signal ratio" to "traffic to pilot signal ratio".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the packet transmission control information" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this examination, claim 1 will be treated as reciting "the packet transmission information" instead of the aforementioned phrase.

Claim 1 recites the limitation "in case that the packet transmission information contains a boost operation" (lines 10-11) as a condition to whether "a power of a transmission signal transmitted via the forward-acknowledgement channel using an increment for a reference transmission power value of a boost mode" (lines 7-10) is determined. Dependent claims 2, 3 and 4 further limit this step of "determining". However, it is not clear from reading the claim if the step of "determining a power..." (lines 7-10) is to be carried out at all in the case that there is no boost operation received and, in turn, if there is no boost operation received then there is no need to perform the step of "determining a power..." (lines 7-10) and accordingly there would be no need to perform the limitations of claims 2, 3 and 4 which further limit the step of "determining a power..." (lines 7-10), thus rendering the claim indefinite. For the purpose of this examination, claim 1 will be treated as reciting ", having received packet

transmission information containing a boost operation", instead of "in case that the packet transmission information contains a boost operation".

Claim 2 recites the limitation "the increment for the transmission" in line 14.

There is insufficient antecedent basis for this limitation in the claim. For the purpose of this examination, claim 2 will be treated as reciting "the increment for the reference transmission" instead of the aforementioned phrase.

Claim 5 recites the limitation "in case of a boost operation" (lines 12-13) as a condition to whether "a boost mode threshold using an increment for a boost mode reference threshold" (lines 11-12) is determined. Dependent claims 6 and 7 further limit this step of "determining". However, it is not clear from reading the claim if the step of "determining a boost mode..." (lines 11-12) is to be carried out at all in the case that there is no boost operation and, in turn, if there is no boost operation then there is no need to perform the step of "determining a boost mode ..." (lines 11-12) and accordingly there would be no need to perform the limitations of claims 6 and 7 which further limit the step of "determining a boost mode..." (lines 11-12), thus rendering the claim indefinite. For the purpose of this examination, claim 5 will be treated as reciting "during boost mode operation", instead of "in case of a boost mode operation".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tiedemann Jr. et al. (US 2002/0154610 A1).

Consider claim 1 (and the rejections under second paragraph of 35 U.S.C. 112 above), Tiedemann Jr. et al. disclose a transmission power control method of a forward-acknowledgement channel (paragraphs [0027]-[0035] and [0044]-[0045]), comprising the steps of: receiving packet transmission information in a base station (paragraphs [0030]-[0031]); and determining a power of a transmission signal transmitted via the forward-acknowledgement channel (paragraphs [0053]-[0104] where Tiedemann Jr. et al. disclose transmitting Ack/Nak message (via F-CPANCH, reads on F-ACKCH) at a same or different power level than the previous power level, (hence the power level of the F-CPANCH was determined) and Tiedemann Jr. et al. also disclose comparing received pilot channel power to a threshold and determining whether to increase or decrease transmission power (hence power level was determined), Tiedemann Jr. et al. further disclose sending the command to increase or decrease the transmission power by using power control bits, Tiedemann Jr. et al. further disclose sending control information via the F-CPANCH including power control, hence a determined transmission power is transmitted via F-CPANCH) using an increment for a reference transmission power value of a boost mode, having received packet transmission information containing a boost operation (paragraphs [0053]-[0104] (specially [0101]-[0104]) where Tiedemann Jr. et al. disclose measuring received pilot channel power and comparing it to a threshold (reference) and determining whether to increase or decrease transmission power (increment for boost operation) and transmitting the determination

(determining power of transmission signal) by using power control bits and Tiedemann Jr. et al. also disclose performing a next measurement of received pilot channel power in which the received pilot channel power is indicative of a boost operation since depending on the measured value, it will be apparent whether the power control bits were properly received or they were received in error).

Consider claim 2 (and the rejection under second paragraph of 35 U.S.C. 112, above), Tiedemann Jr. et al. disclose all the limitations as applied to claim 1 above and also disclose wherein the increment for the reference transmission power value is determined according to a sub-packet identification or service data unit length transmitted via a reverse-packet data control channel (paragraphs [0041]-[0043], where Tiedemann Jr. et al. disclose a reverse rate indicator symbol used for transmission and retransmission, the RRI including a sequence number and retransmission sequence number).

Consider claims 3 and 4, Tiedemann Jr. et al. disclose all the limitations as applied to claim 1 above and also disclose wherein the power of the transmission signal transmitted via the forward-acknowledgement channel is determined in a manner of adding the increment to the reference transmission power value of the boost mode if the signal is an acknowledgement or non-acknowledgement (paragraphs [0053]-[0104], where Tiedemann Jr. et al. disclose measuring received pilot channel power and comparing it to a threshold (reference) and determining whether to increase or decrease transmission power (increment for boost operation) and transmitting the determination (determining power of transmission signal) by using power control bits and Tiedemann

Jr. et al. also disclose performing a next measurement of received pilot channel power in which the received pilot channel power is indicative of a boost operation since depending on the measured value, it will be apparent whether the power control bits were properly received or they were received in error).

Consider claim 5 (and the rejection under second paragraph of 35 U.S.C. 112 above), Tiedemann Jr. et al. disclose an acknowledgement control method of a forward-acknowledgement channel (paragraphs [0027]-[0035] and [0044]-[0045]), comprising the steps of: receiving acknowledgement information in a mobile station (paragraphs [0053]-[0104]); determining a boost mode threshold using an increment for a boost mode reference threshold during boost mode operation and deciding a presence or non-presence of acknowledgement using the threshold (paragraphs [0053]-[0104] (specially [0101]-[0104]) where Tiedemann Jr. et al. disclose measuring received pilot channel power and comparing it to a threshold (hence a threshold has been determined) and determining whether to increase or decrease transmission power (increment for boost mode) and transmitting the determination (determining power of transmission signal) by using power control bits and Tiedemann Jr. et al. also disclose performing a next measurement of received pilot channel power in which the received pilot channel power is indicative of a boost operation since, depending on the measured value, it will be apparent whether the power control bits were properly received (hence receipt of power control bits is acknowledged) or they were received in error (hence receipt of power control bits is not acknowledged)).

Consider claim 6, Tiedemann Jr. et al. disclose all the limitations as applied to claim 5 above and also disclose wherein the increment for the reference threshold is determined according to a sub-packet identification or service data unit length transmitted via a reverse-packet data control channel (paragraphs [0041]-[0043], where Tiedemann Jr. et al. disclose a reverse rate indicator symbol used for transmission and retransmission, the RRI including a sequence number and retransmission sequence number).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann Jr. et al. in view of Kim et al. (US 2003/0031119 A1).

Consider claim 7, Tiedemann Jr. et al. disclose all the limitations as applied to claim 5 above and also disclose wherein the increment for the reference threshold is

determined according to a sub-packet identification transmitted via a reverse-packet data control channel (paragraphs [0038]-[0043], where Tiedemann Jr. et al. disclose a reverse rate indicator symbol used for transmission and retransmission, the RRI including a sequence number and retransmission sequence number).

Tiedemann Jr. et al. do not specify service data unit length.

Kim et al. disclose considering service data unit length for resource allocation (paragraphs [0075]-[0083]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to consider the length of service data unit as taught by Kim et al. in the method of Tiedemann Jr. et al. since the length of service data unit relates to the amount of data to be transmitted and the data rate and the reverse link is subject to the power limitations of the remote terminal, thus considering service data unit length aids in allocating resources for data transmission (as suggested by Kim et al. in paragraph [0082] and by Tiedemann Jr. et al. in paragraph [0071]).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Heo et al. (US 2003/0103481 A1) disclose a method for transmitting and receiving control information.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alejandro Rivero whose telephone number is 571-272-2839. The examiner can normally be reached on Monday-Friday. If attempts to

Application/Control Number:
10/577,072
Art Unit: 2618

Page 11

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR


NAY MAUNG
SUPERVISORY PATENT EXAMINER

Application/Control Number:
10/577,072
Art Unit: 2618

Page 12